App No.: Not Yet Assigned Docket No.: 3068120 Inventor: Gregg BAECKLER et al. Title: LOGIC CELL SUPPORTING ADDITION OF THREE Docket No.: 306812005600

BINARY WORDS

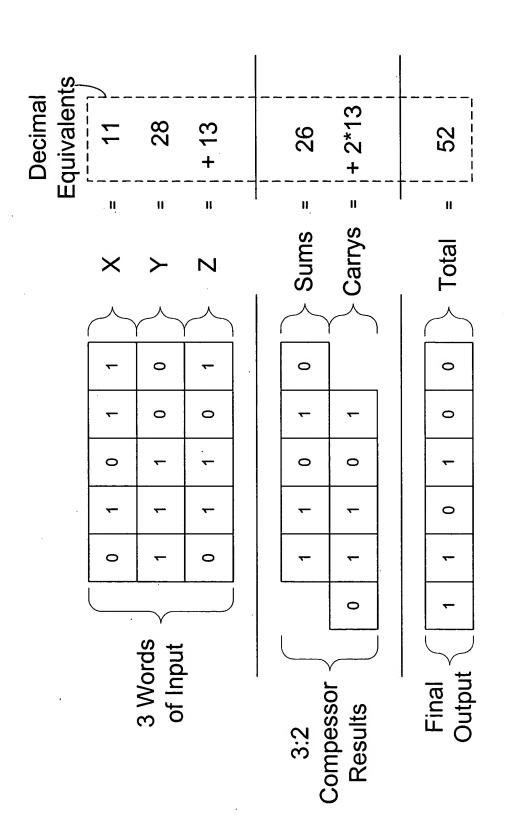


Figure 1 (Prior Art)

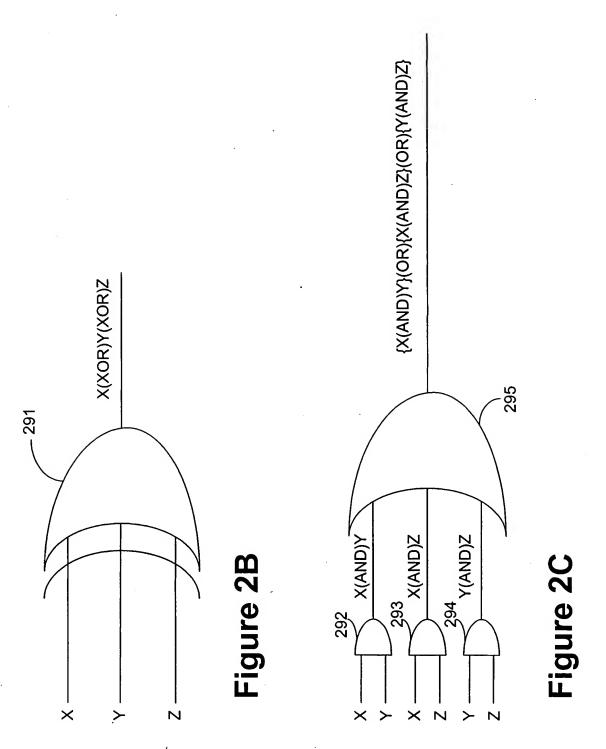
Title: LOGIC CELL SUPPORTING ADDITION OF THREE **BINARY WORDS** From Adder of Previous LE or From LUT of Previous LE or Ground for First LE Ground for First LE. 290 Z[n] X[n] Y[n] Sum CO-4 LUT D0 210 X+Y+Z bit n Carry 216 4 LUT D0 215 290 Z[n+1] A B C1 Sum X[n+1] C1 -Y[n+1] D1 -4 LUT 220 X+Y+Z bit n+1 Z[n+1] A Carry 225 226 X[n+1] C1-4 LUT Y[n+1] D1-290 205 290 Sum C0 4 LUT D0 260 X+Y+Z bit n+2 A B Carry Z[n+2] X[n+2] Y[n+2] 266 4 LUT D0 265 290 Z[n+3] Sum X[n+3] Y[n+3] 4 LUT D1 270 X+Y+Z bit n+3Z[n+3] A B X X[n+3] C1-Y[n+3] D1 Carry 4 LUT 276 290 255 To Next LE

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Docket No.: 306812005600

Figure 2A

App No.: Not Yet Assigned Docket No.: 3068120
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BINARY WORDS Docket No.: 306812005600



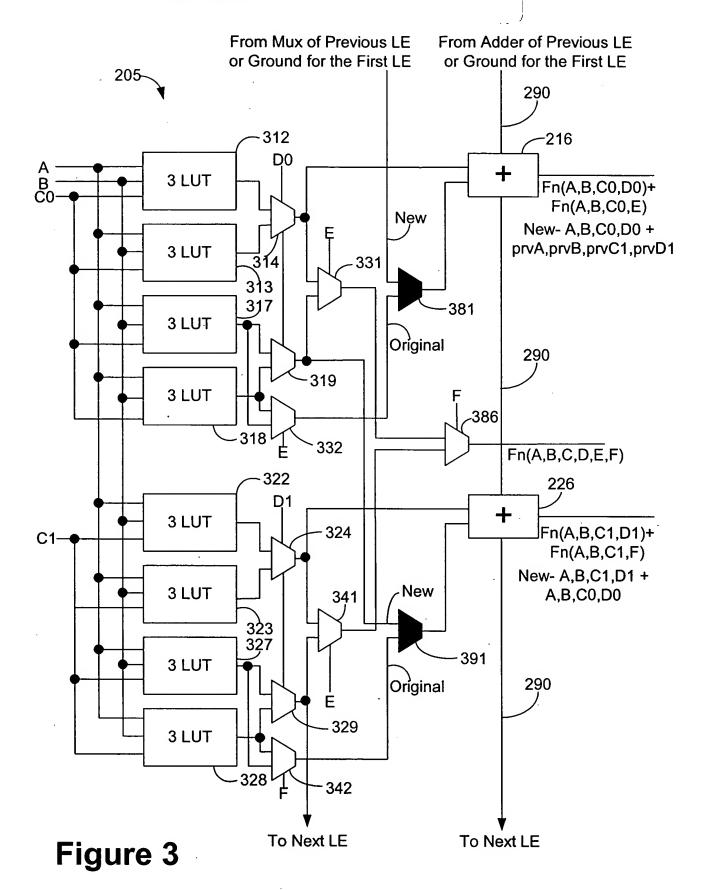
App No.: Not Yet Assigned

Docket No.: 306812005600

Inventor: Gregg BAECKLER et al.

Title: LOGIC CELL SUPPORTING ADDITION OF THREE

BINARY WORDS



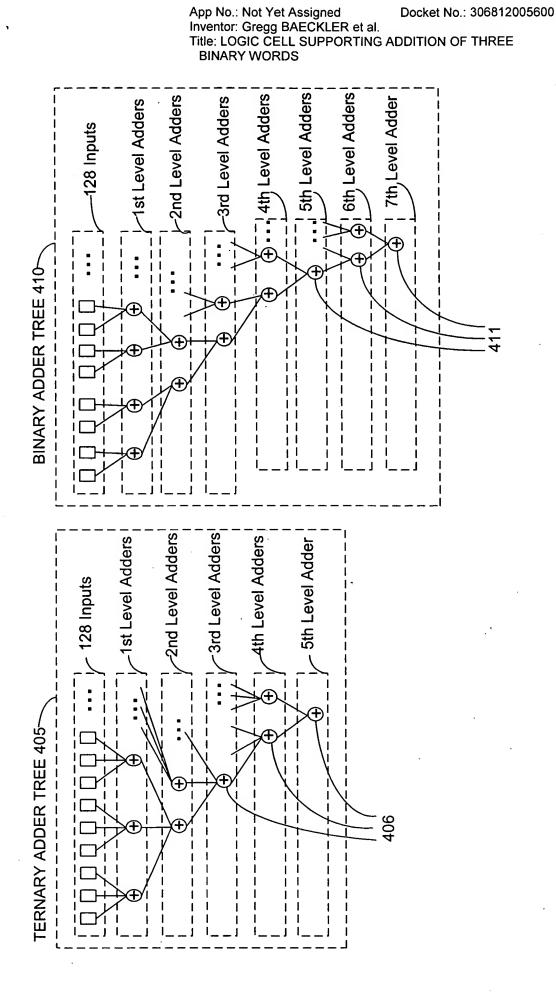
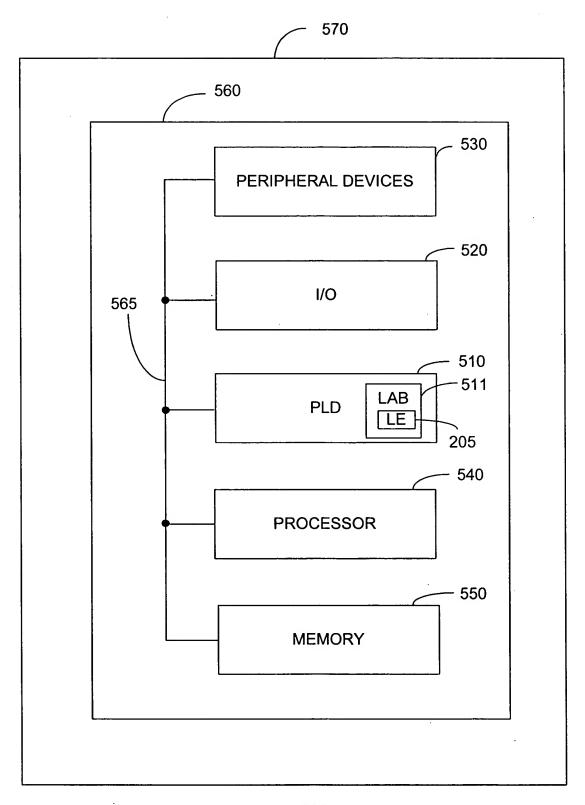


Figure 4

Docket No.: 306812005600

App No.: Not Yet Assigned Docket No.: 3068120 Inventor: Gregg BAECKLER et al. Title: LOGIC CELL SUPPORTING ADDITION OF THREE

BINARY WORDS



<u>500</u>

Figure 5